IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

LIGHTING SCIENCE GROUP CORP.,)
Plaintiff,) REDACTED – PUBLIC VERSION
v.) CA No
LUMILEDS HOLDING B.V. & LUMILEDS, LLC,))) JURY TRIAL DEMANDED
Defendants.)

COMPLAINT

Plaintiff Lighting Science Group Corp. files this Complaint against Defendants Lumileds Holdings B.V. and Lumileds, LLC, collectively "Lumileds", for patent infringement under 35 U.S.C. § 271. Plaintiff alleges, based on its own personal knowledge with respect to its own actions and based upon information and belief with respect to all others' actions, as follows:

INTRODUCTION

1. For nearly two decades, Lighting Science Group Corporation ("LSG") has been at the forefront of innovation in the light-emitting diode ("LED" or "LEDs") lighting space. LSG was the first U.S.-based manufacturer to make an LED light commercially available. In the ensuing years, LSG proved instrumental to the proliferation of LED lighting across American residences. In May 2010, through a relationship with The Home Depot, LSG released a 40-watt equivalent, 429 lumen LED bulb under The Home Depot's EcoSmart brand for \$20. In an article titled, "The Home Depot takes LED lighting mainstream with \$20 bulbs," Engadget celebrated the product for making high-quality LED lighting more economically accessible, noting that LSG's product was "cheaper and nearly as powerful as the 450 lumen, \$40-\$50 design industry heavyweight GE

unveiled" the month before, and concluding, "[h]onestly, we're starting to wonder what the catch is."

- 2. By 2011, LSG's winning combination of innovation, quality, and accessible pricing had led the company to become the largest North American producer of LED lights, selling 4.5 million LED lights in 2011 alone, and increasing sales by 450-percent over the prior year.² That success, in turn, led LSG to become a significant American employer. For three consecutive years, from 2012 to 2014, LSG was named on Deloitte's Technology Fast 500TM as one of the top 500 fastest growing companies in North America.³
- 3. Meanwhile, as LSG continued to advance the field of LED lighting both commercially and technologically, it simultaneously protected and disclosed its innovative intellectual property through hundreds of issued U.S. patents. Those patents, in turn, further advanced the LED lighting space, garnering thousands of citations from later patents filed by LSG's competitors.
- 4. But in recent years, an explosion of products which infringe LSG's innovative patents has eroded LSG's market position. Thus, in order to protect its valuable intellectual property rights and substantial investments in innovating the LED lighting space, LSG files this complaint for patent infringement.
 - 5. This matter is a companion case to an ITC proceeding, captioned *In the Matter of*

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¹ Sean Hollister, "The Home Depot Takes LED Lighting Mainstream with \$20 Bulbs," Engadget (May 11, 2010), https://www.engadget.com/2010/05/11/the-home-depot-takes-led-lighting-mainstream-with-20-bulbs/.

² Jasmine Zhuang, "Lighting Science Group Becomes North American Largest LED Lights Producer," LEDinside (Jan. 31, 2012),

https://www.ledinside.com/news/2012/1/lighting_science_group_north_american_largest_producer_20120131.

³ "Lighting Science Group Corporation Ranked in Top 500 Fastest Growing Companies for Third Consecutive Year in North America on Deloitte's 2014 Technology Fast 500TM," Pegasus Capital Advisors (Nov. 17, 2014), http://www.pcalp.com/lighting-science-group-corporation-ranked-top-500-fastest-growing-companies-third-consecutive-year-north-america-deloittes-2014-technology-fast-500/

Certain Light-Emitting Diode Products, Systems, and Components Thereof, filed concurrently herewith by the same Plaintiff, naming the same Defendants as respondents. Plaintiff hereby incorporate by reference the relevant portions of the Complaint filed in that ITC proceeding as if restated herein.

THE PARTIES

- 6. Lighting Science Group Corp. is a Delaware corporation with its principal place of business located at 801 N. Atlantic Avenue, Cocoa Beach, FL 32931.
- 7. Both directly and through its subsidiary, LSG is in the business of manufacturing, researching, developing, and selling devices and systems that use LEDs as the light source.
- 8. Defendant Lumileds Holding B.V., The Base Building B, 5th Floor, Evert van de Beeksttraat 1-107, 1118 CN Schipol, Netherlands.
- 9. Defendant Lumileds, LLC is a privately held company organized under the laws of the State of Delaware. It has its headquarters at 370 W. Trimble Road, San Jose, CA 95131. Lumileds, LLC has designated Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808 as its agent for service of process.
- 10. On information and belief, Defendant Lumileds Licht AG directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity. On information and belief, Lumileds, LLC is a wholly-owned subsidiary of Lumileds Holding B.V.
- 11. As a result of the above, the Lumileds Defendants are liable jointly, severally, or in the alternative with respect to the same series of transactions or occurrences, and questions of fact common to both of them will arise in this action, consistent with 35 U.S.C. § 299.

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12. Collectively, Lumileds, LLC and Lumileds Holding B.V. are referred to as "Lumileds" or "the Lumileds Defendants".

JURISDICTION AND VENUE

- 13. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 14. This Court has personal jurisdiction over Lumileds in this action because Lumileds has committed acts within this district giving rise to this action, and it has established minimum contacts with this forum such that the exercise of jurisdiction over Lumileds would not offend traditional notions of fair play and substantial justice. Lumileds, directly and through subsidiary or intermediaries, has committed and continues to commit acts of infringement in this district by, among other things, importing, offering to sell, and selling products that infringe the asserted patents.
- 15. Defendant Lumileds, LLC is a resident of this district. Lumileds Holding B.V. controls the products sold by its subsidiary Lumileds, LLC., and it controls or acts jointly with its subsidiary in the marketing and sale of the accused products.
- 16. Venue is proper as to Defendants Lumileds in this district under 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b).
- 17. Defendant Lumileds, LLC is organized under the laws of Delaware, and thus resides in this district and commits acts of infringement in this district.
- 18. Venue is proper as to Lumileds Holdings B.V. which is organized under the laws of the Netherlands. 28 U.S.C. § 1391(c)(3) provides that "a defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded

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in determining where the action may be brought with respect to other defendants."

COUNT ONE: INFRINGEMENT OF THE '483 PATENT

- 19. U.S. Patent No. 7,098,483 ("the '483 Patent"), titled "Light Emitting Diodes Packaged for High Temperature Operation," was issued on August 29, 2006, naming Joseph Mazzochette and Greg Blonder as the inventors. Ex. 1 ('483 Patent).
- 20. LSG owns by assignment all rights, title, and interest in the '483 Patent, and it holds all substantial rights pertinent to this suit, including the right to sue and recover for all past, current, and future infringement.
- 21. On information and belief, Lumileds imports, sells for importation, and/or sells after importation into the United States certain Accused Products ("Lumileds Accused Products") that infringe the '483 Patent, including products sold as the Lumileds LUXEON C Color (L1C1-5790000000000) LED Package.
- 22. The Lumileds Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 14-16 of the '483 Patent, in violation of 35 U.S.C. § 271(a). Lumileds directly infringes at least this claim by importing, selling for importation, and/or selling after importation into the United States the Lumileds Accused Products. The Lumileds Accused Products satisfy all claim limitations of at least claims 11 and 14-16 of the '483 Patent at the time of importation into the United States.
- 23. Moreover, on information and belief, one or more of the Defendants knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Lumileds Accused Products into the United States (that is, by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is

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encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Defendants sells the Lumileds Accused Products or otherwise provides the Lumileds Accused Products to another Defendant or to distributors knowing that these distributors intend to import and/or sell the Lumileds Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Defendants have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Lumileds Accused Products.

- 24. A claim chart comparing claims 11 and 14-16 of the '483 Patent to a representative Lumileds Accused Product, the Lumileds LUXEON C Color (L1C1-5790000000000) LED Package,⁴ is attached as Exhibit 2.
- 25. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following products also constitute Lumileds Accused Products that infringe the '483 Patent for the reasons set forth above:
 - Lumileds LUXEON Rebel (LXMA-PL02-0100) LED Package
 - Lumileds LUXEON F ES (LFXH-C2B-0200) LED Package
 - Lumileds LUXEON IR Domed (L1I0-0850060000000) LED Package
 - Lumileds LUXEON Rebel (LXML-PWC1-0100) LED Package
 - Lumileds LUXEON CZ Color (L1CU-507000000000) LED Package
 - Lumileds LUXEON V2 (L1V2-5770000000000) LED Package
 - Lumileds LUXEON Rebel PLUS (LX18-P150-3) LED Package
 - Lumileds LUXEON Rebel ES (LXML-PWC2) LED Package
 - Lumileds LUXEON V (L1V1-407003V500000) LED Package
 - Lumileds LUXEON MX (L1MX-407012V500000) LED Package
 - Lumileds LUXEON M (LXR7-SW40) LED Package
 - Lumileds Z ES (LXZ2-3580-3) LED Package
 - Lumileds LUXEON MZ (LMZ7-RW65) LED Package
 - Lumileds LUXEON TX (L1T2-307000000000) LED Package
 - Lumileds LUXEON IR Domed (L1I0-0940060000000) LED Package
 - Lumileds LUXEON MX (L1MX-407012V500000) LED Package
 - Lumileds LUXEON TX (L1T2-508000000000) LED Package

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⁴ Upon information and belief, this product was manufactured by or for Lumileds.

- Lumileds LUXEON V (L1V1-657003V500000) LED Package
- Lumileds LUXEON V2 (L1V2-657000000000) LED Package
- Lumileds LUXEON F PC Amber (LFMH-L1A-0070) LED Package
- Lumileds LUXEON MZ (LMZ7-RW40) LED Package
- Lumileds LUXEON Rebel PLUS (LX18-P127-3) LED Package
- Lumileds LUXEON R (LXA7-PW50) LED Package
- Lumileds LUXEON Rebel, White & PC Amber (LXMA-PW01-0120) LED Package
- Lumileds LUXEON Rebel (LXML-PWC1-0120) LED Package
- Lumileds LUXEON Rebel ES (LXML-PWN2) LED Package
- Lumileds LUXEON M (LXR7-SW30) LED Package
- Lumileds LUXEON Z ES (LXZ2-4070) LED Package

COUNT TWO: INFRINGEMENT OF THE '053 PATENT

- 26. U.S. Patent No. 7,095,053 ("the '053 Patent"), titled "Light Emitting Diodes Packaged for High Temperature Operation," issued on August 22, 2006, naming Joseph Mazzochette and Greg Blonder as the inventors. Ex. 3 ('053 Patent).
- 27. LSG owns by assignment all rights, title, and interest in the '053 Patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past, current, and future infringement.
- 28. On information and belief, Lumileds imports, sells for importation, and/or sells after importation into the United States certain Accused Products ("Lumileds Accused Products") that infringe the '053 Patent, including products sold the Lumileds LUXEON IR Domed (L1I0-0850060000000) LED Package.
- 29. The Lumileds Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11-5, 7, 11-14, 16-20, 22, and 26-29 of the '053 Patent, in violation of 35 U.S.C. § 271(a). Lumileds directly infringes at least this claim by importing, selling for importation, and/or selling after importation into the United States the Lumileds Accused Products. The Lumileds Accused Products satisfy all claim limitations of at least claims 11-5, 7,

11-14, 16-20, 22, and 26-29 of the '053 Patent at the time of importation into the United States.

- 30. Moreover, on information and belief, one or more of the Defendants knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Lumileds Accused Products into the United States (that is, by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Defendants sells the Lumileds Accused Products or otherwise provides the Lumileds Accused Products to another Defendant or to distributors knowing that these distributors intend to import and/or sell the Lumileds Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Defendants have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Lumileds Accused Products.
- 31. A claim chart comparing claims 11-5, 7, 11-14, 16-20, 22, and 26-29 of the '053 Patent to a representative Lumileds Accused Product, the Lumileds LUXEON IR Domed (L1I0-085006000000) LED Package,⁵ is attached as Exhibit 4.
- 32. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Lumileds Accused Products that infringe the '053 Patent for the reasons set forth above:
 - Lumileds LUXEON® Rebel LEDs (LXMA-PL02-0100)
 - Lumileds LUXEON® H50-2 (LXAC-1827)
 - Lumileds LUXEON F ES (LFXH-C2B-0200)
 - Lumileds LUXEON Rebel (LXML-PWC1-0100)
 - Lumileds LUXEON CZ Color (L1CU-5070000000000)

⁵ Upon information and belief, this product was manufactured by or for Lumileds.

- Lumileds LUXEON V2 (L1V2-5770000000000)
- Lumileds LUXEON C Color (L1C1-5790000000000)
- Lumileds LUXEON Rebel PLUS (LX18-P150-3)
- Lumileds LUXEON Rebel ES (LXML-PWC2)
- Lumileds LUXEON V (L1V1-407003V500000)
- Lumileds LUXEON MX (L1MX-407012V500000)
- Lumileds LUXEON M (LXR7-SW40)
- Lumileds Z ES (LXZ2-3580-3)
- Lumileds LUXEON MZ (LMZ7-RW65)
- Lumileds LUXEON TX (L1T2-3070000000000)
- Lumileds LUXEON C Color Line (L1C1-FRD1000000000)
- Lumileds LUXEON IR Domed (L1I0-0940060000000)
- Lumileds LUXEON MX (L1MX-407012V500000)
- Lumileds LUXEON TX (L1T2-5080000000000)
- Lumileds LUXEON V (L1V1-657003V500000)
- Lumileds LUXEON V2 (L1V2-6570000000000)
- Lumileds LUXEON F PC Amber (LFMH-L1A-0070)
- Lumileds LUXEON MZ (LMZ7-RW40)
- Lumileds LUXEON Rebel PLUS (LX18-P127-3)
- Lumileds LUXEON R (LXA7-PW50)
- Lumileds LUXEON H50-2 (LXAC-1827)
- Lumileds LUXEON Rebel Color Line (LXM3-PD01)
- Lumileds LUXEON Rebel, White & PC Amber (LXMA-PW01-0120)
- Lumileds LUXEON Rebel (LXML-PWC1-0120)
- Lumileds LUXEON Rebel ES (LXML-PWN2)
- Lumileds LUXEON M (LXR7-SW30)
- Lumileds LUXEON Z ES (LXZ2-4070)

COUNT THREE: INFRINGEMENT OF THE '421 PATENT

- 33. U.S. Patent No. 7,528,421 ("the '421 Patent"), titled "Surface Mountable Light Emitting Diode Assemblies Packaged for High Temperature Operation," issued on May 5, 2009, naming Joseph Mazzochette as the inventor. Ex. 5 ('421 Patent).
- 34. LSG owns by assignment all rights, title, and interest in the '421 Patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past, current, and future infringement.
 - 35. On information and belief, Lumileds imports, sells for importation, and/or sells

after importation into the United States certain Accused Products ("Lumileds Accused Products") that infringe the '421 Patent, including products sold as the Lumileds LUXEON 3535L (MXA8-PW50-0000) LED Package.

- 36. The Lumileds Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6, and 10 of the '421 Patent, in violation of 35 U.S.C. § 271(a). Lumileds directly infringes at least these claims by importing, selling for importation, and/or selling after importation into the United States the Lumileds Accused Products. The Lumileds Accused Products satisfy all claim limitations of claims 1-2, 6, and 10 of the '421 Patent at the time of importation into the United States.
- 37. Moreover, on information and belief, one or more of the Defendants knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Lumileds Accused Products into the United States (that is, by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Defendants sells the Lumileds Accused Products or otherwise provides the Lumileds Accused Products to another Defendant or to distributors knowing that these distributors intend to import and/or sell the Lumileds Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Defendants have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Lumileds Accused Products.
 - 38. A claim chart comparing claims 1-2, 6, and 10 of the '421 Patent to a representative

Lumileds Accused Product, the Lumileds LUXEON 3535L (MXA8-PW50-0000) LED Package,⁶ is attached as Exhibit 6.

- 39. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Lumileds Accused Products that infringe the '421 Patent for the reasons set forth above:
 - Lumileds LUXEON SunPlus 2835 (L1SP-PNK1002800000)

JURY DEMAND

Plaintiff hereby demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE Plaintiff Lighting Science Group Corp. prays upon this Court for an order granting the following relief:

- a. A judgment in favor of Plaintiff that Lumileds has infringed, either literally and/or under the doctrine of equivalents, '483 patent, the '053 patent, and the '421 patent;
- b. A permanent injunction prohibiting Lumileds from further acts of infringement of the '483 patent, the '053 patent, and the '421 patent;
- c. A judgment and order requiring Lumileds to pay Plaintiff its damages, costs, expenses, and any enhanced damages to which LSG is entitled for Lumileds's infringement of the '483 patent, the '053 patent, and the '421 patent; and
- d. A judgment and order requiring Lumileds to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest;

⁶ Upon information and belief, this product was manufactured by or for Lumileds.

- e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against Lumileds; and
- f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

ASHBY & GEDDES

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